ABSTRACT OF THE DISCLOSURE

A method for isolating and purifying nucleic acids with an improved recovery yield is provided. A mixed solution containing the nucleic acids, salts, and an organic solvent is contacted with an adsorption support to cause the nucleic acids to be adsorbed on the support. Then, the nucleic acids are desorbed from the support using an elution buffer. At least one compound containing 2 to 10 carbon atoms as selected from the group consisting of aliphatic ether, aliphatic ester, and aliphatic ketone is used as the organic solvent. The method improves the yield of nucleic acids collection, is easy to implement and less susceptible to contamination.